Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1. (Original) A method of validating a coin which includes the steps of causing a collision between the coin and a surface, generating a signal indicative of resultant movement of the surface, identifying at least one time domain feature of the signal and making a validation decision based on at least one characteristic of the feature wherein the feature is defined by at least two points of inflection of the signal.

2. (Original) The method of claim 1 wherein said two points of inflection of the signal are each separated from succeeding points of inflection by at least a predetermined length.

3. (Original) The method of claim 2 which includes the step of identifying a plurality of features based on a plurality of predetermined lengths.

4. (Original) The method of claim 3 which includes the step of calculating an acceptance value for at least one feature used in the validation decision wherein the acceptance value is derived from measurements of change in amplitude and duration of the signal for the corresponding feature.

5. (Original) The method of claim 4 wherein the acceptance value is calculated for each feature which satisfies a validity test wherein the validity test is based on any one of:

an average gradient of the signal over the duration of the corresponding feature;

a location of the corresponding feature in the time domain;

a total length of the feature; or

a time duration of the feature.

6. (Original) The method of claim 5 wherein each acceptance value is compared to at least one predetermined value, said comparison forming the basis for the validation.

7. (Original) The method of claim 6 wherein the acceptance value is proportional to a length described by the signal for the corresponding feature.

8. (Previously presented) The method of claim 7 wherein the acceptance value is inversely proportional to the square of the duration of the signal for the corresponding feature.

9. (Original) The method of any preceding claim wherein a piezoelectric crystal is used to derive the signal.

10. (Original) A method of validating a coin which includes the steps of obtaining a signal from a collision of the coin and using features of the signal to determine coin validity where at least one parameter used in the identification of the features is dynamically variable.

11. (Canceled)

12. (Original) A method of validating a coin which includes the steps of analyzing a signal and validating a coin on the basis of the signal analysis wherein the analysis is triggered by a trigger having a positive and a negative threshold which are independently variable.

13. (Currently amended) A method of validating a coin which includes the steps of:
analyzing a signal produced by a collision of a coin with a surface; ~~and~~
terminating the analysis if ~~of either~~ a valid coin is found; ~~or~~ and
terminating the analysis if a predetermined time has elapsed.

14-16. (Canceled)

17. (Currently amended) ~~The coin validator of claim 15~~
A coin validator which includes a surface, means for obtaining a signal from movement of the surface, means for digitally sampling the signal to obtain a sample and a processor which produces a sequence of values based on the sample and uses the values to validate a coin, wherein the processor is configured to identify at least one time domain feature of the signal and make a validation decision based on at least one characteristic of the feature wherein the feature is defined by at least two points of inflection of the signal.

18. (Currently amended) The coin validator of claim [[15]] 17 wherein said two points of inflection of the signal are each separated from succeeding points of inflection by at least a predetermined length.

19. (Previously Presented) The coin validator of claim 18 wherein the processor is configured identify a plurality of features based on a plurality of predetermined lengths.

20. (Previously Presented) The con validator of claim 19 wherein the processor is configured to calculate an acceptance value for at least one feature used in the validation decision wherein the acceptance value is derived from measurements of change in amplitude and duration of the signal for the corresponding feature.

21. (Previously Presented) The coin validator of claim 20 wherein the processor is configured to calculate an acceptance value for each feature which satisfies a validity test wherein the validity test is based on any one of:

an average gradient of the signal over the duration of the corresponding feature;

a location of the corresponding feature in the time domain;

a total length of the feature; or

a time duration of the feature.

22. (Previously Presented) The coin validator of claim 21 wherein the processor is configured to compare each acceptance value to at least one predetermined value, said comparison forming the basis for the validation.

23. (Previously Presented) The coin validator of claim 22 wherein the acceptance value is proportional to a length described by the signal for the corresponding feature.

24. (Previously Presented) The coin validator of claim 23 wherein the acceptance value is inversely proportional to the square of the duration of the signal for the corresponding feature.

25. (Currently amended) The coin ~~acceptor~~ validator of any one of claims ~~15 and~~ 17 through 24 comprising a piezoelectric crystal to generate the signal.

26. (Currently amended) ~~The coin validator of claim 15~~

A coin validator which includes a surface, means for obtaining a signal from movement of the surface, means for digitally sampling the signal to obtain a sample and a processor which produces a sequence of values based on the sample and uses the values to validate a coin, wherein the processor is configured to analyze the signal and validate the coin based on the signal analysis wherein the analysis, the coin validator further including a trigger to the trigger the analysis, wherein the trigger has positive and negative thresholds that are independently variable.

27. (Previously Presented) A coin validator which includes a surface, means for obtaining a signal from a collision of the coin and a processor to determine coin validity using features of the signal wherein at least one parameter used in the identification of the features is dynamically variable.